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cylinders allows variation in the amount of magnetic flux intersecting the two concentric cylinders. This causes the amount of induced electrical current in the cylinder containing the electro-conductive elements to vary, which then causes the induced counter magnetic forces to vary. The magnetic forces and, thus, torque transmitted will vary based on the amount of axial overlap.

The proposed invention overcomes previous limitations by taking advantage of new technologies in magnet materials and provides a stable means of mechanically varying large amounts of transmitted torque without the need for large external current controls.

IN THE CLAIMS: (Clean copy of claims – see attachment for marked-up copy)

The following claims were previously cancelled by Applicant 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28.

Claims 14 and 29 were cancelled by Examiner's Action with Applicant's approval, mailed on August 31, 2006.

Any Claims cancelled or amended are without prejudice or disclaimer.

Please amend the following independent claims 1 and 16, and add new dependent claims 31 and 32, per Examiner comments in the September 15, 2006 interview (See Form PTOL-413), the undersigned counsel's Interview Summary comments above, and with the Examiner's comments in the Final Office Action mailed August 31, 2006, to place in better form for allowance, as follows:

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CLAIMS

What is claimed is:

1. (Currently Amended) An apparatus for transferring torque magnetically comprising:
 - a primary torque driving rotary member and a secondary driven rotary member;
 - the primary rotary member axially overlapping said secondary rotary member;
 - the secondary rotary member being surrounded by said primary member;
 - the primary rotary member having permanent magnets mounted on it;
 - the secondary rotary member having electro-conductive elements and magnetically permeable materials neither of which are ferromagnetic, and not having permanent magnets;
 - said secondary rotary member axially overlapped by said primary rotating member wherein a means for varying said primary rotary member's axial position relative to said secondary rotating member is provided; and
 - said primary rotating member being connected to and driven by a torque producing device and said secondary rotating member being connected to a torque utilizing device whereby rotation of the primary rotary member causes rotation of said secondary rotating member by some or all of the magnetic flux lines emanating from said permanent magnets mounted on said primary rotating member cutting through the electro-conductive material on said secondary rotary member thereby generating torque and rotation in said secondary rotary member in relation to the percentage of the total area that said secondary rotary member is axially overlapped by said primary rotary member.

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2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Currently Amended) An apparatus for transferring torque magnetically comprising:

a primary torque driving rotary member and a secondary driven rotary member;

the primary rotary member axially overlapping said secondary rotary member;

the secondary rotary member being surrounded by said primary member;

the primary rotary member having electro-conductive elements and magnetically permeable materials neither of which are ferromagnetic, and, not having permanent magnets;

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the secondary rotary member having permanent magnets mounted on it;
said secondary rotary member axially overlapped by said primary rotating member
wherein a means for varying said primary rotary member's axial position relative to said
secondary rotating member can be varied; and
said primary rotating member being connected to and driven by a torque producing device
and said secondary rotating member being connected to a torque utilizing device whereby
rotation of the primary rotary member causes rotation of said secondary rotating member
by some or all of the magnetic flux lines emanating from said permanent magnets
mounted on said primary rotating member cutting through the electro-conductive material
on said secondary rotary member thereby generating torque and rotation in said secondary
rotary member in relation to the percentage of the total area that said secondary rotary
member is axially overlapped by said primary rotary member.

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

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26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (New) The apparatus as in Claim 1, wherein said magnetically permeable material that is not ferromagnetic, located on said secondary rotary member, is a machined, 304 grade, stainless steel.

32. (New) The apparatus as in Claim 16, wherein said magnetically permeable material that is not ferromagnetic, located on said primary rotary member, is a machined, 304 grade, stainless steel.